

This document contains the Connecticut regulations concerning the Wastewater Treatment Facility Operator Certification. These regulations became effective on June 5, 2000. This document was prepared by the State of Connecticut Department of Environmental Protection and is provided for the convenience of the reader. This is not the official version of the regulations. The official version of the regulations are published by the State of Connecticut, Judicial Branch, Commission of Official Legal Publications in the Connecticut Law Journal. In the event there is inconsistency between this document and the regulations as published in the Connecticut Law Journal, the Connecticut Law Journal publication will serve as the official version.

Most fees required pursuant to Title 22a of the Connecticut General Statutes, and regulations adopted thereunder, were increased effective August 21, 2003, with the passage of Public Act 03-06 (An Act Concerning General Budget and Revenue Implementation Provisions).

Sections 108 through 139, inclusive, of the Public Act specifically increased those fees established by statute.

Sections 149 thorough 153, inclusive, of the Public Act increased those fees established by regulation as follows:

- 1) 50% for any fee over \$100.00; and
- 2) Doubled those fees that were \$100.00 or less with a minimum fee set at \$100.00.

Fees that went into effect on August 21, 2003 are summarized in the table included at the end of the regulations.

**WASTEWATER TREATMENT  
FACILITY OPERATOR  
CERTIFICATION REGULATIONS**

**WASTEWATER TREATMENT FACILITY OPERATOR CERTIFICATION**  
**(Effective June 5, 2000)**

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**State of Connecticut**  
**REGULATION OF**  
**Department of Environmental Protection**  
**concerning**  
**Wastewater Treatment Facility Operator Certification**  
**(Effective June 5, 2000)**

**Sec. 22a-416-1. GENERAL**

(a) Sections 22a-416-1 to 22a-416-10, inclusive, of the Regulations of Connecticut State Agencies shall be known as the Wastewater Treatment Operator Regulations.

(b) Definitions

For purposes of Sections 22a-416-1 to 22a-416-10, inclusive of the Regulations of Connecticut State Agencies:

(1) "Advisory committee" means the advisory committee appointed under section 22a-416-10 of the Regulations of Connecticut State Agencies;

(2) "Applicant" means an individual who files an application;

(3) "Application" Means an application for operator certification under the Wastewater Treatment Operator Regulations;

(4) "Biological wastewater treatment process" means the process by which metabolic activities of bacteria and other microorganisms break down complex organic materials into simple, more stable substances;

(5) "BOD5" means the amount of oxygen utilized by bacteria in the biochemical oxidation of organic matter over five days;

(6) "Certificate" means a certificate issued by the commissioner stating that the operator named therein has met the minimum requirements for the operator classification specified in such certificate;

(7) "Certification" means the issuance of a certificate;

(8) "Class" and "Classification" are interchangeable;

(9) "Commissioner" means the commissioner of environmental protection as defined in subsection (b) of section 22a-2 of the general statutes;

(10) "Chief Operator" means the operator who has ultimate supervisory responsibility for the operation and maintenance of a wastewater treatment facility, is responsible for signing the discharge monitoring reports and is responsible for the daily on-site supervision, process control direction and overall performance of such facility;

(11) "Contact hour" means one hour of instruction on a topic determined by the commissioner to be related to wastewater treatment facility operation;

(12) "Continuing education unit" (CEU) means ten contact hours of participation in an organized higher education program approved by the commissioner for wastewater treatment operators;

(13) "Day" means calendar day;

- (14) “Department” means the Connecticut Department of Environmental Protection;
- (15) “Direct responsible charge experience” for a chief operator or shift operator means experience as an on-site daily supervisor of the operation of a wastewater treatment facility with responsibility for, without limitation, process control direction. Operation of individual process units alone does not constitute direct responsible charge experience. “Direct responsible charge experience” for a process control operator means experience as on-site daily responsibility for process control direction of a wastewater treatment facility;
- (16) “Discharge monitoring report” means the monthly report required by subsection (j) of section 22a-430-3 of the Regulations of Connecticut State Agencies;
- (17) “Domestic wastewater” means wastewater discharged from residences or from employee or public washrooms in institutions, businesses, or industrial establishments;
- (18) “Domestic wastewater process” means any process of treating any volume of wastewater consisting wholly or partially of domestic wastewater;
- (19) “Examination” means an examination for operator certification under subsection (b) of section 22a-416-5 of the Regulations of Connecticut State Agencies;
- (20) “Foreign certificate” means a certificate issued by a state, territory or possession of the United States other than Connecticut, stating that the holder thereof has met the minimum qualifications for a wastewater treatment facility operator required by such state, territory, or possession;
- (21) “G.E.D. ” means a general equivalency diploma obtained by passing a general educational development test or its equivalent as recognized by the issuing state board of education;
- (22) “Higher education” means post-high school education or training, including but not limited to training courses, seminars, workshops, conferences, and college level courses, related, in the commissioner’s sole judgement, to wastewater treatment facility operation;
- (23) “Industrial wastewater” means wastewater other than domestic wastewater, discharged from institutions, businesses, or industrial establishments that is amenable to treatment by means of biological wastewater treatment;
- (24) “In the field” refers to employment at a wastewater treatment facility or employment which, in the commissioner’s sole judgement, is related to the operation of a wastewater treatment facility; examples of such employment include start-up services, technical assistance, operator training or the administration of a wastewater treatment facility;
- (25) “MGD” means million gallons per day;
- (26) “Misconduct” means behavior by an applicant in the course of an operator certification examination which conduct interferes with administration of such examination including but not limited to, talking or otherwise making noise during examination, cheating, and use of unauthorized material;
- (27) “Monthly operating report” means the monthly report required by subsection (j) of section 22a-430-3 of the Regulations of Connecticut State Agencies;
- (28) “Operator” means any individual who operates, is contracted to operate, or is employed by an entity or contractor to operate equipment at a wastewater treatment facility so as to affect treatment processes;
- (29) “Operator experience” means an individual’s experience of satisfactorily performing the duties of an operator at a wastewater treatment facility while employed at any such facility;
- (30) “Operator-in-training” means an applicant who has satisfied all of the requirements for certification under the wastewater treatment operator regulations except for the minimum experience requirements of subdivision (c)(5) of section 22a-416-4 of the Regulations of Connecticut State Agencies;

(31) “Operating shift” means a regular period of time at a wastewater treatment facility when operators are present and make process control changes;

(32) “Owner” means the owner in fee simple of a wastewater treatment facility, provided that if the owner contracts with another person to operate such facility, the contractor shall be deemed the owner for the purposes of the wastewater treatment operator regulations;

(33) “Population equivalent” means the estimated population that contributes or will contribute a given amount of BOD5 or suspended solids to wastewater. For the purpose of determining a population equivalent, estimated population shall be calculated assuming 0.17 pounds of BOD5 per capita per day or 0.20 pounds of suspended solids per capita per day;

(34) “Process control direction” means direction of the operation of the biological wastewater treatment process at a wastewater treatment facility;

(35) “Process control operator” means the operator who, subject to the authority of the chief operator, is responsible for process control direction;

(36) “Reciprocal certificate” means a certificate issued pursuant to subdivision (c)(5) of section 22a-416-5 of the Regulations of Connecticut State Agencies;

(37) “Satisfactory evidence” means certified copies of official transcripts, diplomas, course descriptions, foreign certificates, or other documents acceptable to the commissioner;

(38) “Shift operator” means the operator, subject to the authority of the chief operator, who has supervisory responsibility for the operation and maintenance of a wastewater treatment facility during any operating shift;

(39) “Supervisory responsibility” means daily routine responsibility for managing personnel and operations at a wastewater treatment facility;

(40) “Wastewater” means domestic or industrial wastewater;

(41) “Wastewater treatment facility” means an arrangement of structures and equipment, including solids handling equipment, whose purpose is to treat domestic wastewater or industrial wastewater by means of a biological wastewater treatment process. A domestic wastewater disposal system for a category I or II discharge as defined in subparagraphs (b)(2)(A) and (b)(2)(B) of section 22a-430-1 of the Regulations of Connecticut State Agencies is not a wastewater treatment facility; and

(42) “Watchman shift” means a regular period of time at a wastewater treatment facility during which one or more operators are present but do not make any independent process control changes or conduct any other independent activities which could affect the quality of air, solids, or liquids discharged from the facility.

## **Section 22a-416-2 of the Regulations of Connecticut State Agencies is Repealed**

### **Sec. 22a-416-3. Classification of Wastewater Treatment Facilities**

#### **(a) Classes of Wastewater Treatment Facilities**

There shall be four Classes of wastewater treatment facilities: Class I, Class II, Class III, and Class IV.

(b) Determination of Class

The commissioner classifies each wastewater treatment facility in Connecticut by calculating points therefore in accordance with appendix A and applying the following chart:

Facility Class	I	II	III	IV
Points	30 or less	31-55	56-75	76 or more

(c) List of wastewater treatment facilities by class.

The commissioner maintains a list of wastewater treatment facilities in Connecticut which identifies the class of each such facility.

(d) Notification of a change in class

The commissioner shall notify the owner of a wastewater treatment facility in writing if the commissioner determines under subsection (b) of this section that the class of such facility should be revised as a result of equipment or treatment process modifications thereat. Within 30 days of receiving such notice, the owner may request in writing a consultation with the commissioner concerning the proposed change of class. Within 45 days of such consultation the commissioner will provide the owner with a written decision as to whether he or she will retain the existing facility class or revise it in accordance with the commissioner's prior notice.

**Sec. 22a-416-4 Classes and Qualifications of Wastewater Treatment Facility Operators**

(a) Classification of Operators

There shall be four classes of operator certification: Class I, Class II, Class III, and Class IV.

(b) Language requirement for certification

An applicant for operator certification shall be able to speak, read and write the English language to the extent deemed necessary to perform the duties thereof.

(c) Minimum requirements for operator certification

(1) Class I Operator

An applicant for Class I Operator certification shall (A) submit satisfactory evidence of (i) at least one year of experience in the operation of a wastewater treatment facility of Class I or higher; (ii) a high school diploma or G.E.D.; and (iii) successful completion of a basic wastewater treatment facility operation course, approved by the commissioner, equaling at least nine CEUs; and (B) pass the Class I examination. No substitutions for the requirements of this subdivision shall be permitted.

(2) Class II Operator

An applicant for Class II operator certification shall (A) submit satisfactory evidence of (i) at least three years of experience in the operation of a wastewater treatment facility of Class I or higher; (ii) a high school diploma or G.E.D.; and (iii) successful completion of higher education equivalent to at least 30 CEUs in a field determined by the commissioner to be related to the operation of a wastewater treatment facility, of which at least 18 CEUs are directly related to the operation of a wastewater treatment facility; and (B) pass the Class II examination.

(3) Class III Operator

An applicant for Class III operator certification shall (A) submit satisfactory evidence of (i) at least four years of experience in the operation of a wastewater treatment facility of Class II or higher; (ii) a high school diploma or G.E.D.; and (iii) successful completion of higher education equivalent to at least 90 CEUs in a field determined by the commissioner to be related to the operation of a wastewater treatment facility; and (B) pass the Class III examination.



(4) Class IV Operator

An applicant for Class IV operator certification shall (A) submit satisfactory evidence of (i) at least four years of experience in the operation of a Class III or IV wastewater treatment facility, of which experience at least two years are direct responsible charge experience as a chief operator at a Class III wastewater treatment facility or shift or process control operator at a Class IV wastewater treatment facility; (ii) a high school diploma or G.E.D.; and (iii) successful completion of higher education equivalent to at least 135 CEUs in a field determined by the commissioner to be related to the operation of a wastewater treatment facility; and (B) pass the Class IV examination.

(5) Operator-in-training

(A) An applicant for Class I, II or III operator certification shall be designated by the commissioner, in writing, to become an operator-in-training in Class I, II, or III, respectively, if such applicant meets all the requirements for such certification except for the minimum operating experience requirement under subdivisions (c)(1), (c)(2), or (c)(3) of this section, respectively. Except as provided in subparagraph (B) of this subdivision, when the owner of the wastewater treatment facility at which an operator-in-training is employed notifies the commissioner in writing that such operator-in-training has satisfied the minimum experience requirements for the certification at issue, the commissioner shall issue said certificate.

(B) An operator-in-training who, within five years after passing the certification examination does not obtain the required minimum experience for the certificate applied for shall not be awarded such certificate unless he or she reapplies therefor, takes the certification exam and passes such examination, and satisfies the minimum experience requirement.

(d) Substitution of higher education for minimum operating experience requirements

(1) General

(A) There shall be no substitution for the minimum operating experience requirement for Class I operator certification prescribed in subdivision (c)(1) of this section.

(B) Higher education may be substituted for up to fifty per cent of the minimum operating experience requirement for Classes II, III, and IV operator certification prescribed in subdivisions (c)(2), (c)(3), and (c)(4) of this section.

(C) Higher education shall not be substituted for the required direct responsible charge experience prescribed in subdivision (c)(4) of this section.

(D) Higher education which is substituted for any operating experience requirement prescribed in subsection (c) of this section shall not also be applied to any minimum education requirement prescribed by such subsection.

(2) Higher education equivalents

For the purposes of the Wastewater Treatment Operator Regulations:

(A) Forty-five CEUs are equivalent to one year of higher education. One semester hour is equivalent to 1.6 CEUs.

(B) Forty-five CEUs are equivalent to one year of operating experience.

(3) Operator training courses

Any course, seminar, workshop, conference or college course which the commissioner determines in his sole judgement to be related to wastewater treatment facility operation may be used to meet the higher education requirements of subparagraphs (c)(1)(A), (c)(2)(A), (c)(3)(A), and (c)(4)(A) of this section. The commissioner shall determine in his sole judgement the number of CEUs to which particular hours of higher education are equivalent.

(e) Substitution of other experience for minimum operating experience requirements

(1) For up to 50 percent of the minimum operating experience requirement for Class I, II, III, or IV certification the commissioner may, in his discretion, allow an applicant to substitute operating experience from the maintenance operation of a wastewater treatment facility, from operations of a drinking water treatment facility, from the laboratory operation of a drinking water treatment facility, or from a wastewater treatment facility which does not utilize biological treatment processes, provided

that the commissioner determines that the proposed substitute experience is sufficiently related to the operation of a wastewater treatment facility.

(2) There shall be no substitution for direct responsible charge experience.

(f) Substitution of direct responsible charge experience for higher education CEU requirements

- (1) For up to fifteen CEUs of the higher education requirement in subdivision (c)(3) of this section, the commissioner may in his discretion allow an applicant to substitute up to four months of direct responsible charge experience in a Class II wastewater treatment facility as the chief operator or up to four months of direct responsible charge experience in a Class III wastewater treatment facility.
- (2) For up to thirty CEUs of the higher education requirement in subdivision (c)(4) of this section, the commissioner may in his discretion allow an applicant to substitute up to eight months of direct responsible charge experience in a Class III wastewater treatment facility as the chief operator or up to eight months of direct responsible charge experience in a Class IV wastewater treatment facility.
- (3) Direct responsible charge experience substituted for any education requirement in subsection (c) of this section shall not also be applied to any minimum experience requirement thereunder.

(g) Direct responsible charge accumulation.

For purposes of subsections (d) and (f) of this section:

- (1) Direct responsible charge experience for a chief operator shall accumulate at the rate of 100% of time as a chief operator.
- (2) Direct responsible charge experience for a shift operator shall accumulate at the rate of 100% of time as a shift operator.
- (3) Direct responsible charge experience for a process control operator shall accumulate at the rate of 50% of time as a process control operator.
- (4) Any certified operator acting as chief or shift operator for a minimum period of 2 consecutive working days under subdivisions (b)(8) and (b)(9) of section 22a-416-6 of the Regulations of Connecticut State Agencies during the absence of the permanent chief operator or shift operator may accrue direct responsible charge experience for that time.

## **Sec. 22a-416-5. Application and Certification Procedures**

(a) Applications

- (1) An application shall be made on a form furnished by the commissioner. Unless a completed application is received by the commissioner no later than 45 days before the date of a scheduled examination, the applicant shall not take that examination.
- (2) Unless by no later than 45 days before a scheduled examination the applicant has satisfied either (A) the minimum experience and education requirements for the operator certification sought, or (B) the minimum requirements for operator-in-training status for such classification under subparagraph (c)(5)(A) of section 22a-416-4 of the Regulations of Connecticut State Agencies, he or she shall not take that examination.
- (3) Unless on the date he or she submits the application the applicant is actually employed as an operator at a Connecticut wastewater treatment facility or meets the minimum requirements for operator-in-training status under subparagraph (c)(5)(A) of section 22a-416-4 of the Regulations of Connecticut State Agencies, he or she shall not take an examination for any class of certification; provided, if the applicant is not so employed at a Connecticut wastewater treatment facility at such time, the commissioner may allow him or her to take the next scheduled examination for operator certification if the owner of a Connecticut wastewater treatment facility (A) intends to hire such applicant as an operator when he or she succeeds in obtaining such certification, and (B) notifies the commissioner in writing of such intent no later than 45 days before such examination.

- (4) Each application shall be accompanied by an application fee of \$95. Any application submitted without such fee shall be considered incomplete and shall not be processed until such fee has been paid in full. Such fee shall be paid by certified bank check, money order or personal check made payable to the "Department of Environmental Protection". The check or money order shall state on its face "Wastewater Operator Certification Examination".
- (5) The application fee is non-refundable, provided, if an applicant pays such fee but fails to take the next scheduled examination, the commissioner will apply such fee toward a future application which such applicant may file.

(b) Examinations

- (1) The commissioner shall, for each class of operator certification, hold at least one examination per year at a place and time prescribed by the commissioner.
- (2) At least 90 days before a scheduled examination, the commissioner will provide notice thereof to each wastewater treatment facility in Connecticut.
- (3) At least 30 days before a scheduled examination, the commissioner shall notify each applicant whether he or she meets the minimum requirements in section 22a-416-4 of the Regulations of Connecticut State Agencies for the operator certification sought and is therefore eligible to take such examination.
- (4) No applicant shall be allowed to take an examination without first showing to the examination proctor a valid photographic identification and the notice of eligibility provided under subsection (3) of this section.
- (5) An applicant shall not have any programmable calculator or any written documents or papers during the examination. At the end of the examination, the applicant shall return to the examination proctor all examination documents.
- (6) The commissioner shall notify each applicant of his or her results on such examination but shall not return the examination answer sheets or questions to the applicant. At an applicant's request and upon payment of the regrading fee required by the applicable testing service, the commissioner shall submit the applicant's answer sheet to such testing service for regrading. Under no circumstances shall the commissioner allow the applicant to review examination questions before or after the examination.
- (7) The examination proctor may immediately expel an applicant from the examination room for misconduct. The results of an examination taken by an applicant expelled for misconduct shall be voided. Expulsion for misconduct shall disqualify the applicant from taking an examination for one year from the date of such expulsion.

(c) Issuance of Certificates

- (1) Upon fulfillment by an applicant of the requirements of section 22a-416-4 of the Regulations of Connecticut State Agencies and this section, the commissioner shall issue a certificate of the appropriate class to him or her.
- (2) A certificate shall be active until it is:
  - (A) revoked under subsection (d) of this section;
  - (B) replaced by a certificate of a higher class; or
  - (C) inactivated under subdivision (c)(3) of this section.
- (3) The certificate of an operator who ceases to be employed in the field of wastewater treatment shall become inactive two years after the date his or her last such employment terminated.
- (4) An operator whose certificate has become inactive pursuant to subdivision (c)(3) of this section may apply for reissuance of a certificate. Upon fulfillment by such operator of the requirements of section 22a-416-4 of the Regulations of Connecticut State Agencies and this section, the commissioner shall reissue a certificate to such operator.
- (5) An individual who:
  - (A) is not employed as an operator in Connecticut;

(B) holds a current foreign certificate; and  
(C) wishes to accept employment as an operator in Connecticut may obtain a certificate upon application therefor without examination if:

- (i) such foreign certificate represents an operator certification class which the commissioner deems equivalent to the Connecticut class for which such individual seeks certification;
- (ii) the individual meets the requirements of subsections (b) and (c) of section 22a-416-4 of the Regulations of Connecticut State Agencies;
- (iii) to obtain such foreign certificate, the individual passed a written examination proctored under the authority of the applicable state, territory or possession of the United States;
- (iv) the owner of the Connecticut wastewater treatment facility at which such individual seeks employment as an operator verifies to the commissioner in writing that such owner has offered employment to the individual conditioned upon the individual's receipt of a certificate under this section; and
- (v) the individual submits with his or her application an application fee in accordance with subdivision (a)(4) of this section.

- (6) An operator who obtains a reciprocal certificate to take employment as a chief, shift, or process control operator at a Connecticut wastewater treatment facility shall continue in such position for at least one year or such certificate shall be deemed null and void on the date such employment terminates.
- (7) Any individual who is employed at a Connecticut wastewater treatment facility and seeks higher class certification than his or her current certification may not obtain such higher certification without passing the applicable examination in Connecticut.

#### (d) Revocation of Certificates

The commissioner may, in accordance with chapter 54 of the general statutes and sections 22a-3a-5 and 22a-3a-6 of the Regulations of Connecticut State Agencies, revoke an operator's certificate if such operator:

- (1) obtained such certificate through fraud or misrepresentation or by submitting inaccurate, misleading, or incomplete information;
- (2) has engaged in fraud or misrepresentation, including but not limited to the falsification of any discharge monitoring report or monthly operating report;
- (3) did not exercise reasonable care, judgement, or ability in the performance of his or her duties as an operator;
- (4) fails to properly perform his or her duties as an operator; or
- (5) was previously issued a certificate when in fact he or she did not meet the requirements for that certificate.

### **Sec. 22a-416-6. Requirements For Owners of Wastewater Treatment Facilities**

#### (a) General

- (1) Upon the commissioner's request, the owner of a wastewater treatment facility shall provide in writing to the commissioner the name of each chief operator, shift operator, and process control operator employed at such facility.
- (2) The owner of a wastewater treatment facility shall notify the commissioner in writing prior to any additions or deletions of unit processes or unit operations listed in appendix A.

#### (b) Requirements for employing qualified operators, including chief, shift, and process control operators.

The owner of a wastewater treatment facility shall assure compliance with the following requirements:

- (1) Except as provided in subdivision (b)(2) of this section, the owner shall employ a chief operator certified at the class of such facility or higher, determined in accordance with subsection (b) of section 22a-416-3 of the Regulations of Connecticut State Agencies, and such operator shall be present at such facility for the following minimum numbers of hours each day of a five-day work-week:

Class of facility	Design flow rate of facility (Million Gallons/Day)	Minimum number of hours of the chief operator for on-site operations
I	.020	2
II	.020	2
III	.015	3
I, II	>0.20	7*
III	>0.15	7*
IV	any	7*

\*The Commissioner may give credit to a chief operator for hours of on-site operations for reasonable time he or she spends in training, conferences, meetings, and other administrative duties related to wastewater treatment, and in activities related to operation and maintenance of the collection system, if the collection system is under the chief operator's supervision.

- (2) At a wastewater treatment facility with a design flow rate of less than 0.025 mgd, a chief operator may be present for fewer than the minimum number of hours required by subdivision (b)(1) of this section only with the prior written approval of the commissioner. To obtain such approval, the owner shall demonstrate to the satisfaction of the commissioner that the owner would be able to properly operate such facility and comply with all pertinent requirements of chapter 446k of the general statutes if the chief operator were present for fewer than such required hours. A request for approval under this subdivision shall include, without limitation, a description of duties and tasks performed by each operator during a typical workday and class of the operator certification of each operator employed at the facility.
- (3) At a wastewater treatment facility where the chief operator is not normally present during any operating shift, the owner shall employ a shift operator who is certified no lower than one class below the classification of the facility during such shift.
- (4) Within 24 months of the adoption of the wastewater treatment operator regulations, at a wastewater treatment facility with a design flow rate greater than or equal to 150,000 gallons per day, the owner shall employ a shift operator certified no lower than one class below the classification of the facility during every shift when the chief operator is normally present.
- (5) The owner of a wastewater treatment facility may employ a process control operator certified no lower than one class below the classification of the facility.
- (6) An owner shall not employ as an operator any individual who has not been certified at a minimum of Class I as required in subsection (a) of section 22a-416-7 of the Regulations of Connecticut State Agencies.
- (7) Within 14 days after a chief operator, shift operator, or process control operator begins or terminates employment in such capacity at a wastewater treatment facility, the owner thereof shall notify the commissioner in writing of such fact. Direct responsible charge experience shall not start to accumulate for such chief operator, shift operator, or process control operator until the date the commissioner receives such notification from the owner.
- (8) If either the chief operator or shift operator of a wastewater treatment facility:
- (A) ceases to be employed by such facility or
  - (B) is or will be absent from such facility for more than 30 consecutive days,

The owner of such facility shall notify the commissioner in writing of the designation of an acting chief operator or shift operator within 14 days. An individual may act as chief operator under the wastewater treatment operator regulations only if such individual is certified at no lower than one class below the class of the facility. An individual may act as a shift operator under the wastewater treatment operator regulations only if such individual is certified at no lower than two classes below the class of the facility. The owner of such facility may continue to operate such facility without a chief operator or shift operator for no longer than 90 days, except that upon good cause shown in writing by such owner, the commissioner may extend in writing such 90 day limit for no more than an additional 275 days.

- (9) If either the chief operator or shift operator of a wastewater treatment facility is or will be absent from such facility for less than 30 consecutive days, the owner may continue to operate the facility provided that the owner designates an acting chief operator or acting shift operator, as applicable, during such absence. An individual may act as chief operator under the wastewater treatment operator regulations only if such individual is certified at no lower than one class below the class of the facility. An individual may act as a shift operator under the wastewater treatment regulations only if such individual is certified at no lower than two classes below the class of the facility. If the owner does not employ an individual qualified under this subdivision to act as chief operator or shift operator in the event that the regularly employed chief operator or shift operator is absent for a period of up to 29 days, the owner may continue operating the facility during such absence only if the owner designates the operator with the highest available certification at the facility to act as chief or shift operator during such absence.
- (10) Within three years of the adoption of the Wastewater Treatment Operator Regulations, owners of wastewater treatment facilities utilizing biological processes to treat exclusively industrial wastewater shall comply with the requirements of this section.
- (11) If the adoption of section 22a-416-3 of the Wastewater Treatment Operator Regulations results in reclassification of a wastewater treatment facility to a higher classification, within three years of such adoption the owner of such facility shall comply with the requirements of this section.

#### **Sec. 22a-416-7. Requirements For Operators of Wastewater Treatment Facilities**

- (a) Any individual initially employed after the effective date of the wastewater treatment operator regulations as an operator other than a chief operator, shift operator, or process control operator at a wastewater treatment facility shall obtain a Class I certificate or higher within 24 months of beginning employment at such facility. Any individual who fails to obtain at least a Class I certificate within such time shall be ineligible to act as an operator after such time.
- (b) Any individual whose employment as a chief operator, shift operator, or process control operator at a wastewater treatment facility commences or terminates after the effective date of the Wastewater Treatment Operator Regulations shall notify the commissioner in writing of such commencement or termination within 14 days thereof.
- (c) Operator-in-training status for the applied class does not qualify an applicant to be a certified operator within that class.

#### **Sec. 22a-416-8. Requirements For Chief Operators of Wastewater Treatment Facilities**

- (a) A chief operator may not perform the duties of a chief operator during a single shift at more than one Class IV facility, at more than one Class I or II facility with a design flow greater than 0.20 mgd, or at more than one Class III facility with a design flow greater than 0.15 MGD.
- (b) A chief operator may perform the duties of a chief operator at more than one wastewater treatment facility only in accordance with the table below and only with the written approval of the commissioner. To obtain such approval, a chief operator shall submit a detailed operations and maintenance plan demonstrating to the commissioner's satisfaction that such chief operator could properly perform his or her other duties at each of the subject facilities and assure compliance with all pertinent requirements of chapter 446k of the general statutes if the approval sought were granted.

Daytime Shift				Other Than Daytime Shift
Class of facility	Design flow rate (Million Gallons/Day)	Minimum number of hours during which the chief operator shall be present at each facility on each day of a five-day work week	Number of facilities at which chief operator is employed	Number of Class I or II facilities with a design flow rate of $\leq 0.20$ MGD and/or Class II facilities at which a chief operator may be employed during one non-daytime shift
I	.020	2	3	1
II	.020	2	3	1
III	.015	3	2	1
I, II	>0.20	7*	1	1
III	>0.15	7*	1	1
IV	any	7*	1	1

\*The Commissioner may give credit to a chief operator for hours of on-site operations for reasonable time he or she spends in training, conferences, meetings, and other administrative duties related to wastewater treatment, and in activities related to operation and maintenance of the collection system, if the collection system is under the chief operator's supervision.

- (c) A chief operator may work at more Class I, Class II, or Class III wastewater treatment facilities, with design flow rates of < 0.15 mgd, than allowed under subsection (b) of this section only with the commissioner's written approval. To obtain such approval a chief operator shall demonstrate to the commissioner's satisfaction that such chief operator could properly perform his or her duties at each of the subject facilities and assure compliance with all pertinent requirements of chapter 446k of the general statutes if the approval sought were granted. A request for approval under this subdivision shall include, without limitation, a description of each workday during a workweek, including the times during which the said chief operator is or would be present at each of the subject facilities, and information about the travel times between such facilities.
- (d) With the exception of a Class IV chief operator who seeks approval to operate both a Class IV facility during a daytime shift and operating a Class I or II facility with a design flow rate of  $\leq 0.20$  mgd or a Class III facility with a design flow of  $\leq 0.15$  mgd during a non-daytime shift, the commissioner shall not grant approval under subsections (b) or (c) of this section unless the chief operator seeking such approval is certified under section 22a-416-4 of the Regulations of Connecticut State Agencies at least one class higher than the highest class of wastewater treatment facility of which he or she is chief operator at the time he or she requests such approval.
- (e) The commissioner shall not grant a request for approval under subsections (b) or (c) of this section unless such request is accompanied by a statement, on a form supplied by the commissioner, by the owner of each wastewater treatment facility which is the subject of such request certifying that such owner employs or wants to employ the requester as a chief operator at such facility.
- (f) The commissioner shall review any approval under this section at least once every five years and may withdraw such approval at any time if, the chief operator does not properly perform his or her duties at each of the subject facilities or assure compliance with pertinent requirements of chapter 446k of the general statutes.

**Section 22a-416-9 of the Regulations of Connecticut State Agencies is Repealed.**

## **Sec. 22a-416-10. Advisory committee**

### **(a) Committee Appointment and Makeup**

The commissioner shall appoint an advisory committee composed of no less than eight and no more than twelve members as follows: two shall be employees of the department whose regular duties involve the planning, design and construction of wastewater treatment facilities, at least one shall be an educator experienced in the training of wastewater treatment facility operators, and the remaining members shall be operators certified at the time of such appointment under section 22a-416-4 of the Regulations of Connecticut State Agencies.

### **(b) Term of Appointment**

The department employees and educator members of the advisory committee shall be appointed for an unlimited period of time. All other members of the advisory committee shall be appointed for a term of up to three years. The commissioner may reappoint any such member to a second term of up to three years, but in no case shall such member serve more than six consecutive years. The commissioner may revoke any individual's appointment as a member for failure to attend a majority of the scheduled meetings of the advisory committee or for failure to provide assistance in performing the duties of the committee as described in subsection (d) of this section.

### **(c) Compensation**

The advisory committee shall serve without compensation and shall convene at the discretion of the commissioner.

### **(d) Duties of the Committee**

The advisory committee shall advise and assist the commissioner in administering the certification program by:

- (1) reviewing the classifications of particular wastewater treatment facilities;
- (2) reviewing applications for certification and for revalidation of certificates under subsection (c) of section 22a-416-5;
- (3) making recommendations to the commissioner on the evaluation and classification of new and modified wastewater treatment facility equipment and processes;
- (4) encouraging qualified individuals to become certified;
- (5) encouraging owners of wastewater treatment facilities to promote and facilitate advanced certification of their employees;
- (6) promoting wastewater treatment facility operator training programs;
- (7) commenting on the proposed revocation of a certificate;
- (8) reviewing reciprocal certification requests by operators from other states;



- 9) reviewing the proposed examinations;
- (10) performing related duties as requested by the commissioner;
- (11) reviewing operations and maintenance plans under section 22a-416-6 and section 22a-416-8; and
- (12) Reviewing extension of the 90 (ninety) day limit under subdivision (b)(8) of section 22a-416-6.

#### STATEMENT OF PURPOSE:

The regulations set forth the classes of wastewater treatment facilities and wastewater treatment facility operators; qualifications of wastewater treatment facility operators; and the technical and administrative procedures and requirements for operator certification as required by subsection (d) of section 22a-416 of the general statutes.

#### APPENDIX A: Classification of Wastewater Treatment Facilities

<u>Size of facility (2-20 points)</u>		<u>Points</u>
Maximum population equivalent (P.E.) served on peak day	1 point per 10,000 P.E. or part thereof, for a maximum of 10 points	_____
Design flow	1 point per MGD or part thereof, for a maximum of 10 points	_____
<u>Land disposal</u> (evaporation)	2	_____
<u>Subsurface disposal</u>	4	_____
<u>Variation in strength and/or flow of raw wastewater</u> (slight to extreme) (0-6 points)		
Variations do not exceed those normally present	0	_____
Recurring variations of 100% to 200% from norm	2	_____
Recurring variations of more than 200% from norm	4	_____
Raw wastes that impair biological treatment processes	6	_____
<u>Pretreatment plant processes utilized</u>		
Pumping of main flow other than recycle flows at any point within the facility	3	_____
Screening or comminution	1	_____
Grit removal	3	_____
Equalization	1	_____
Effluent pumping when receiving infiltration (e.g. stream flooding)	3	_____
<u>Combined Sewer Overflow</u>		
Storage	1	_____
Treatment	3	_____
<u>Primary treatment utilized</u>		
Primary clarifiers	5	_____
Combined sedimentation/digestion (Imhoff tanks)	5	_____
Micro screening or other physical treatment	3	_____
Trickling filters used as roughing filters with recycle and intermediate clarifiers	5	_____
Trickling filters used as roughing filters with recycle or intermediate clarifiers	3	_____
March 2001 Guidelines	Connecticut Wastewater Operator	Certification

SCADA

Operational	6	_____
Monitoring	2	_____

Secondary treatment utilized

Trickling filter or rotating biological contractor with secondary clarifiers	10	_____
Activated sludge with secondary clarifiers	15	_____
Activated sludge without primary clarifiers including extended aeration, sequential batch reactors and oxidation ditches	18	_____
Stabilization ponds without aeration	5	_____
Aerated lagoon	8	_____

Advanced treatment utilized

Post aeration (mechanical)	2	_____
Direct recycle and reuse	6	_____
Polishing pond	2	_____
Chemical phosphorus removal	4	_____
Biological phosphorus removal	6	_____
Nitrification processes	6	_____
Nitrification and denitrification processes	9	_____
Denitrification filter	6	_____
Ion exchange	10	_____
Reverse osmosis or electrodialysis	15	_____
Chemical recovery or carbon regeneration	4	_____
Mechanical filtration	10	_____
Intermittent sand filters with gravity underdrains	5	_____

Solids Handling

Solids conditioning with polymers, ferric chloride or alum	2	_____
Thickening by means of:		
Gravity	2	_____
Mechanical (dissolved air flotation, gravity belt or centrifuge)	5	_____
Anaerobic digestion	10	_____
Aerobic digestion	6	_____
Evaporative sludge drying	2	_____
Mechanical dewatering	5	_____
Incineration, wet oxidation, or other solids reduction	12	_____
On-site disposal	2	_____
Composting (In vessel)	10	_____
Composting (static pile)	5	_____
Sludge storage	1	_____
Sludge pumping offsite	2	_____

Disinfection

Chlorination or comparable disinfection	5	_____
Chlorination/Dechlorination	8	_____
On-site generation and application of disinfectant	5	_____
Ultraviolet light	5	_____

<u>Odor control</u>			
Biofilter	3		_____
Adsorption with activated carbon or equal	3		_____
Wet scrubber	6		_____
Thermal destruction with catalytic process	6		_____
Odor reducing sprays	2		_____
<u>Chemical Additives</u>			
Septage treatment system	3		_____
Nutrient removal	2		_____
<u>Biological laboratory analysis</u>			
Laboratory analysis performed outside the facility	0		_____
Laboratory analysis performed at the facility:			
Membrane filter	2		_____
Use of fermentation tubes or any dilution method using a fecal coliform bacteria determination	3		_____
Identification and counts of biota by percent relative abundance	3		_____
<u>Chemical and/or Physical laboratory analysis</u>			
Laboratory analysis performed outside the facility	0		_____
Laboratory analysis performed at the facility:			
Push-button or visual methods for simple analysis (e.g. settleable solids)	2		_____
Additional analysis including dissolved oxygen, biological oxygen demand, chemical oxygen demand, gas analysis, titration, solids, and volatile content	3		_____
More advanced analyses including specific constituents, nutrients, total oils, phenols, or use of highly sophisticated instrumentation including atomic absorption, gas chromatography	3		_____
Total points:			_____

Department of Environmental Protection						
Inland Water Resources, Diversion, Dam Safety, Water Discharge Programs - Revenue Schedule						
Section of Public Act 03-06 that Amended Old Fee						
	Statutory Authority	Regulatory Authority	Amount	Fee Description	Fee Amount Effective 8/21/03	
1		22a - 6		N/A	Fee to recover reasonable costs of FOI requests	
2		22a - 6k			Temporary Authorizations-Discharge to POTW-FEE MAY BE MORE IF AUTH. REQUIRES MORE DETAIL	\$1,000.00
3		22a - 6k			Temporary Authorizations-Discharge to Surface Water- FEE MAY BE MORE IF AUTH. REQUIRES MORE DETAIL	\$1,000.00
4		22a - 6k			Emergency Authorizations-Discharge to POTW- FEE MAY BE MORE IF AUTH. REQUIRES MORE DETAIL	\$1,000.00
5		22a - 6k			Emergency Authorizations-Discharge to Surface Water- FEE MAY BE MORE IF AUTH. REQUIRES MORE DETAIL	\$1,000.00
		22a - 6k			Emergency or Temporary Authorizations - Discharge to Groundwater-FEE MAY BE MORE IF AUTH. REQUIRES MORE DETAIL	\$1,000.00
6						
7	SCEL	22a - 342		Section 127	Stream channel encroachment - no change in grade - no above ground construction	\$375.00
8		22a - 342		Section 127	Stream channel encroachment - change in grade - no above ground construction	\$750.00
9		22a - 342		Section 127	Stream channel encroachment - change in grade - above ground construction	\$3,750.00
10	Diversion	22a - 372(e)(1)		Section 131	Permit for water diversion for consumptive use of > 50,000 gallons < 500,000 gallons/24 hrs	\$1,800.00
11		22a - 372(e)(2)		Section 131	Permit for water diversion for consumptive use of > 500,000 gallons < 2,000,000 gallons/24 hrs	\$3,750.00
12		22a - 372(e)(3)		Section 131	Permit for water diversion for consumptive use of > 2,000,000 gallons/24 hrs	\$6,000.00
13		22a - 372(e)(4)		Section 131	Permit for water diversion for nonconsumptive use - watershed < 1/2 sq miles	\$1,800.00
14		22a - 372(e)(5)		Section 131	Permit for water diversion for nonconsumptive use - watershed >1/2 sq miles < 2 sq miles	\$3,750.00
15		22a - 372(e)(6)		Section 131	Permit for water diversion for nonconsumptive use - watershed > 2 sq miles	\$6,000.00
16		22a - 379		Section 132	Annual fee for holders of diversion permits for consumptive use	\$750.00
17	Dam Safety	22a - 409(b)		Section 133	Dam registration - height of > 5 ft < 15 ft	\$50.00
18		22a - 409(b)		Section 133	Dam registration - height of > 15 ft < 25 ft	\$100.00
19		22a - 409(b)		Section 133	Dam registration - height of > 25 ft	\$200.00
20		22a - 409		Section 133	Inspection of registered dams	\$525.00
21						
22	IWRD General Permits	22a-349a & 22a-378a		Section 152	Diversion of water for consumptive use-general permits (DEP-PERD-GP-01)	
23					Water transfer or interconnection	\$500.00
24					Unregistered water supply	\$1,000.00

Department of Environmental Protection						
Inland Water Resources, Diversion, Dam Safety, Water Discharge Programs - Revenue Schedule						
Section of Public Act 03-06 that Amended Old Fee						
	Statutory Authority	Regulatory Authority	Amount	Fee Description	Fee Amount Effective 8/21/03	
25				Withdrawal of water up to 250,000 gallons in 24 hour period	\$1,000.00	
26				Withdrawal of water from back-up well	\$500.00	
27				Withdrawal of water for hydrostatic testing	\$700.00	
28				Withdrawal of groundwater from a well constructed to restore production capacity of another well	\$700.00	
29				Withdrawal of groundwater from a well constructed to replace another well under the influence of surface water	\$1,000.00	
30				Withdrawal and discharge of groundwater remediation water	\$1,000.00	
31				Diversion of water by a small water supply system	\$1,000.00	
		22a-45a & 22a-349a	Section 152 (22a-6f(c)(2))	Construction GPs		
32				Habitat Conservation within Inland Wetlands and Stream Channel Encroachment Lines (GP-003)	\$1,000.00	
33				Lake, Pond and Basin Dredging (GP-004)	\$1,000.00	
34				Placement of Utilities and Drainage within Inland Wetlands and Stream Channel Encroachment Lines (GP-005)	\$1,000.00	
35				Minor Structures within Inland Wetlands and Stream Channel Encroachment Lines (GP-006)	\$1,000.00	
36				Minor Grading within Inland Wetlands and Stream Channel Encroachment Lines (GP-007)	\$1,000.00	
37				Dam Safety Repair and Alteration (GP-008)	\$1,000.00	
38						
39	Water Discharge Permits	22a-416-5(a)(4)	Section 152 (22a-6f(b))	POTW Certification Exam Fee	\$190.00	
40		22a - 430 - 6(d)(2)	Section 152 (22a-6f(b))	Filing Fee for new or reissued water pollution control permit	\$1,050.00	
41		22a - 430 - 6(e)(C)	Section 152 (22a-6f(b))	Water pollution control permit- <b>Groundwater</b> Processing Fee	Schedule A App. Fee x 1.5	
42		22a - 430 - 6(e)(C)	Section 152 (22a-6f(b))	Water pollution control permit- <b>Surface Water</b> Processing Fee	Schedule A App. Fee x 1.5	
43		22a - 430 - 6(e)(C)	Section 152 (22a-6f(b))	Water pollution control permit- <b>Sewer Permit</b> Processing fee	Schedule A App. Fee x 1.5	
44		22a - 430 - 6(e)(E) & (F)	Section 152 (22a-6f(b))	Water pollution control permit modification fee	\$750.00	
45		22a - 430 - 6(h)	Section 152 (22a-6f(b))	Water pollution control permit transfer fee	\$750.00	
46		22a - 430 - 7	Section 152 (22a-6f(b))	Water pollution control permit- <b>Groundwater</b> Annual Fees	Schedule B Annual Fee x 1.5	
47		22a - 430 - 7	Section 152 (22a-6f(b))	Water pollution control permit- <b>Surface Water</b> Annual Fees	Schedule B Annual Fee x 1.5	
48		22a - 430 - 7	Section 152 (22a-6f(b))	Water pollution control permit- <b>Sewer Permits</b> Annual Fees	Schedule B Annual Fee x 1.5	
49						
50	Water Discharge General Permits	22a-430b	Section 152 (22a-6f(c)(2))	Vehicle Maintenance Wastewater-Registration Only	\$500.00	

**Department of Environmental Protection**  
**Inland Water Resources, Diversion, Dam Safety, Water Discharge Programs - Revenue Schedule**

Section of Public Act 03-06 that Amended Old Fee						
	Statutory Authority	Regulatory Authority	Amount	Fee Description	Fee Amount Effective 8/21/03	
51		22a-430b		Section 152 (22a-6f(c)(2))	Vehicle Maintenance Wastewater-Dept. Review Required	\$1,000.00
52		22a-430b		Section 152 (22a-6f(c)(2))	Domestic Sewage	\$500.00
53		22a-430b		Section 152 (22a-6f(c)(2))	Food Processing Wastewater	\$500.00
54		22a-430b		Section 152 (22a-6f(c)(2))	Groundwater Remediation Wastewater to Sanitary Sewer	\$500.00
55		22a-430b		Section 152 (22a-6f(c)(2))	Hydrostatic Pressure Testing (Natural Gas Pipelines)	\$1,000.00
56		22a-430b		Section 152 (22a-6f(c)(2))	Hydrostatic Pressure Testing	\$500.00
57		22a-430b		Section 152 (22a-6f(c)(2))	Minor Non-Contact Cooling and Heat Pump Water	\$500.00
58		22a-430b		Section 152 (22a-6f(c)(2))	Minor Photographic Processing	\$100.00
59		22a-430b		Section 152 (22a-6f(c)(2))	Minor Printing & Publishing Wastewater	\$500.00
60		22a-430b		Section 152 (22a-6f(c)(2))	Minor Tumbling or Cleaning of Parts Wastewater	\$1,000.00
61		22a-430b		Section 152 (22a-6f(c)(2))	Stormwater Associated w/ Commercial Activities	\$500.00
62		22a-430b		Section 152 (22a-6f(c)(2))	Stormwater Associated w/ Industrial Activities	\$500.00
63		22a-430b		Section 152 (22a-6f(c)(2))	Stormwater & Dewatering Wastewater-Construction Activities	\$500.00
64		22a-430b		Section 152 (22a-6f(c)(2))	Swimming Pool Wastewater-Public Pools & Contractors	\$500.00
65		22a-430b		Section 152 (22a-6f(c)(2))	Water Treatment Wastewater	\$500.00
66		22a-430b		Section 152 (22a-6f(c)(2))	Misc Discharge of Wastewater <or = 5000 gpd	\$500.00
67		22a-430b		Section 152 (22a-6f(c)(2))	Misc Discharge of Wastewater >5000 gpd	\$1,000.00
68		22a-430b		Section 152 (22a-6f(c)(2))	Misc Discharge of Wastewater- Fire Sprinkler System Testwater	\$500.00
69		22a-430b		Section 152 (22a-6f(c)(2))	Stormwater Pollution Prevention Review Plan	\$500.00
70						